

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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Appellant : Timo VIERO
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BRIEF ON APPEAL UNDER 37 C.F.R. § 41.37

Sir:

In response to the Final Office Action dated February 3, 2010, Appellant on April 30, 2010, requested an Appeal to consider the issues raised in the Action. Accordingly, this Brief on Appeal under 37 C.F.R. §41.37 is being filed.

The fees required under § 41.20(b)(2) should be charged to Deposit Account No. 17-0026.

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I. Real Party in Interest

The real party in interest in this appeal is QUALCOMM Incorporated, 5775 Morehouse Drive, San Diego, California, 92121.

II. Related Appeals and Interferences

To the best of Appellant's knowledge, there are no other previous or pending appeals of this Application, or patent interference proceedings, or judicial proceedings which may be related to, directly affect, or be directly affected by, or have a bearing on the Board's decision of this Appeal.

III. Status of Claims

In the present Application, claims 36-40, 42, 48, 53, 55-57, 59-62, 64-66, 74, 75, and 81-94 are on Appeal.

1. Claims cancelled: 1-34, 41, 49, 50, 52, 54, 58, 63, and 67-73
2. Claims withdrawn from consideration but not cancelled: none
3. Claims pending: 35-40, 42-48, 51, 53, 55-57, 59-62, 64-66, and 74-94
4. Claims allowed: 35, 43-47, 51, and 76-80
5. Claims rejected: 36-40, 42, 48, 53, 55-57, 59-62, 64-66, 74, 75, and 81-94

IV. Status of Amendments

The latest Amendment filed on June 22, 2009, has been entered. Accordingly, there are no un-entered amendments.

V. Summary of the Claimed Subject Matter

Independent claim 36 is directed to a method (see generally, page 21, line 22 to page 22, line 2), comprising: receiving a dynamically adjustable parameter (e.g., the parameter A and the timing parameter T_{AICH} discussed, for example, at page 13, lines 11-25; see also, page 21, line 31 to page 22, line 2) defining allowed access slots of a physically existing random access channel from a base transceiver station (e.g., 10) of a mobile communications network (see, e.g., FIG. 2) by at least one mobile station (e.g., 20) of a plurality of mobile stations of the mobile communications network (see, e.g., page 11, lines 30-34); determining, at said at least one mobile station, said allowed access slots of the physically existing random access channel based on said parameter (see, e.g., page 11, line 34 to page 12, line 5); using, at said at least one mobile station, at least one of said determined allowed access slots of the physically existing random access channel to initiate a random access operation with said base transceiver station (see, e.g., page 12, lines 5-7); and receiving said parameter via a broadcast channel (see, e.g., page 11, lines 32-34), wherein said broadcast channel is a broadcast channel of a wideband code division multiple access system (see, e.g., page 5, lines 1-2).

Dependent claim 82 depends from claim 36, and recites that the method further comprises: receiving, at said at least one mobile station, an adjusted parameter defining a modified set of allowed access slots (see, e.g., page 21, line 31 to page 22, line 2) of the physically existing random access channel from said base transceiver station via said broadcast channel (see, e.g., page 11, lines 30-34); determining, at said at least one mobile station, said modified set of allowed access slots of the physically existing random access

channel based on said adjusted parameter (**see, e.g., page 11, line 34 to page 12, line 5**); and using, at said at least one mobile station, at least one of said determined modified set of allowed access slots of the physically existing random access channel to initiate a second random access operation with said base transceiver station (**see, e.g., page 12, lines 5-7**).

Independent claim 37 is directed to a method (**see generally, page 21, line 22 to page 22, line 2**), comprising: receiving a dynamically adjustable parameter (**e.g., the parameter A and the timing parameter T_{AICH} discussed, for example, at page 13, lines 11-25; see also, page 21, line 31 to page 22, line 2**) defining allowed access slots of a physically existing random access channel from a base transceiver station (**e.g., 10**) of a mobile communications network (**see, e.g., FIG. 2**) by at least one mobile station (**e.g., 20**) of a plurality of mobile stations of the mobile communications network (**see, e.g., page 11, lines 30-34**); determining, at said at least one mobile station, said allowed access slots of the physically existing random access channel based on said parameter (**see, e.g., page 11, line 34 to page 12, line 5**); using, at said at least one mobile station, at least one of said determined allowed access slots of the physically existing random access channel to initiate a random access operation with said base transceiver station (**see, e.g., page 12, lines 5-7**); receiving said parameter via a broadcast channel (**see, e.g., page 11, lines 32-34**); and initiating said random access operation via a physical random access channel uplink channel and an acquisition indication channel downlink channel of the wideband code division multiple access system (**see, e.g., page 5, lines 2-4**).

Independent claim 53 is directed to a system (**see, e.g., FIG. 2**), comprising: a base transceiver station (**e.g., 10**) configured to transmit a dynamically adjustable parameter defining allowed access slots of a physically existing random access channel (**see, e.g., page**

10, line 23 to page 11, line 5); and a plurality of mobile stations (**e.g., 20**) configured to receive said parameter to determine said allowed access slots of the physically existing random access channel based on said parameter (**see, e.g., page 11, line 30 to page 12, line 5**), and to use at least one of said determined allowed access slots of the physically existing random access channel to initiate a random access operation with said base transceiver station (**see, e.g., page 12, lines 5-7**), wherein said base transceiver station is a wideband code division multiple access base transceiver station and said plurality of mobile stations are wideband code division multiple access mobile stations (**see, e.g., page 5, lines 1-2**).

Independent claim 55 is directed to an apparatus (**see, e.g., FIG. 2**), comprising: setting means (**e.g., 14**) for setting a dynamically adjustable parameter defining allowed access slots of a physically existing random access channel (**see, e.g., page 10, lines 25-27**), wherein at least one mobile station initiates a random access operation to the apparatus based on the allowed access slots of the physically existing random access channel (**see, e.g., page 11, lines 13-18**); and transmitting means (**e.g., 11**) for transmitting said parameter to said plurality of mobile stations (**see, e.g., page 11, lines 3-5**), wherein said apparatus is a wideband code division multiple access base transceiver station system (**see, e.g., page 5, lines 1-2**).

Independent claim 64 is directed to an apparatus (**see, e.g., FIG. 2**), comprising: a receiver (**e.g., 21**) configured to receive from a network element a dynamically adjustable parameter defining allowed access slots of a physically existing random access channel for a random access operation (**see, e.g., page 11, lines 30-34**); a processor (**e.g., 23**) configured to determine said allowed access slots of the physically existing random access channel based on said parameter received from said network element (**see, e.g., page 11, line 34 to page 12,**

line 5); and a transmitter (**e.g., 21**) configured to initiate transmission of a random access message to said network element using at least one of said determined allowed access slots of the physically existing random access channel (**see, e.g., page 12, lines 5-7**), wherein the processor is further configured to randomly select an uplink access slot to be used for transmitting a preamble of said random access message from the allowed access slots of the physically existing random access channel determined by said processor (**see, e.g., page 11, lines 7-11**), and wherein consecutive preambles are transmitted a predetermined number of access slots apart (**see, e.g., page 11, lines 9-11**).

Independent claim 74 is directed to an apparatus (**see, e.g., FIG. 2**), comprising: a processor (**e.g., 22-24**) configured to receive a dynamically adjustable parameter defining allowed access slots of a physically existing random access channel from a base transceiver station of a mobile communications network (**see, e.g., page 11, lines 30-34**), determine said allowed access slots of the physically existing random access channel based on said parameter (**see, e.g., page 11, line 34 to page 12, line 5**), use at least one of said determined allowed access slots of the physically existing random access channel to initiate a random access operation with said base transceiver station (**see, e.g., page 12, lines 5-7**), and receive said parameter via a broadcast channel (**see, e.g., page 11, lines 32-34**), wherein said broadcast channel is a broadcast channel of a wideband code division multiple access system (**see, e.g., page 5, lines 1-2**).

Independent claim 75 is directed to an apparatus (**see, e.g., FIG. 2**), comprising: a processor (**e.g., 22-24**) configured to receive a dynamically adjustable parameter defining allowed access slots of a physically existing random access channel from a base transceiver station of a mobile communications network (**see, e.g., page 11, lines 30-34**), determine said

allowed access slots of the physically existing random access channel based on said parameter (see, e.g., page 11, line 34 to page 12, line 5), use at least one of said determined allowed access slots of the physically existing random access channel to initiate a random access operation with said base transceiver station (see, e.g., page 12, lines 5-7), receive said parameter via a broadcast channel (see, e.g., page 11, lines 32-34), and initiate said random access operation via a physical random access channel uplink channel and an acquisition indication channel downlink channel of the wideband code division multiple access system (see, e.g., page 5, lines 2-4).

VI. Grounds of Rejection to be Reviewed on Appeal

In the February 3, 2010, Final Office Action, the Office finally rejected: claims 36-40, 48, 53, 55-57, 59-62, 64-66, 74-75, 82, 84, 86, 88, 90, and 92 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,567,482 to Papovic (hereinafter "Papovic") in view of U.S. Patent No. 6,169,759 to Kanterakis (hereinafter "Kanterakis"); claim 42 under 35 U.S.C. § 103(a) as being unpatentable over Papovic in view of Kanterakis and in further view of U.S. Patent 6,836,469 to Gustafsson et al. (hereinafter "Gustafsson"); and claims 81, 83, 85, 87, 89, 91, and 93 under 35 U.S.C. § 103(a) as being unpatentable over Papovic in view of Kanterakis and in further view of U.S. Patent 5,012,469 to Sardana (hereinafter "Sardana"). Each of these rejections is discussed in turn within the Argument section below.

VII. Argument

- 1. Regarding the rejection of independent claims 36, 37, 53, 55, 64, 74, and 75, as well as the rejection of dependent claims 38-40, 48, 56, 57, 59-62, 65, 66, 82, 84, 86, 88, 90, and 92, in view of Papovic and Kanterakis.**

Independent claim 36 recites the use of “a dynamically adjustable parameter defining allowed access slots of a physically existing random access channel.” Allowing a base transceiver station to dynamically adjust the definition of the allowed access slots improves upon the conventional, fixed definition systems by providing various advantages, such as increased capacity, etc. *See, e.g., Appellant’s Background section*, paragraph [0005]. The Appellant and the Examiner agree that the primary reference Papovic only teaches a conventional, fixed definition system where the allowed access slots are not dynamically adjustable. The secondary reference Kanterakis has therefore been introduced by the Examiner in attempt to modify Papovic and maintain the rejections. The main issue on appeal is whether allowing a mobile station, as in Kanterakis, to vary the number of predefined allowed access slots used to transmit a given random access burst over the conventional, fixed definition system in Papovic is equivalent to dynamically adjusting the definition of the allowed access slots themselves. Appellant submits that it clearly is not.

Papovic and Kanterakis

Papovic as applied teaches that “[i]nformation on what access slots are available in the current cell is broadcast by the base station on a downlink broadcast channel.” *Papovic*, col. 13, lines 25-28; *see also*, step 220 of FIG. 9. Based on this “information” about the available RACH slots, “the mobile station generates a random access burst” and transmits it to the base station. *Id.*, col. 13, lines 61-66. The secondary reference Kanterakis is introduced simply to

show that the length of such a random access burst by a mobile station can be variable, ranging from merely a few slots to many frames. *Final Office Action*, pgs. 3-4.

Even if the Examiner is correct in characterizing the teachings of Kanterakis, and even if the proposed modification to Papovic were to be made, the proposed modification would not affect the “information” about the available RACH slots in Papovic that the Examiner is reading on the claimed “parameter” at issue, such as recited in claim 36, for example. Allowing the traffic burst transmitted by the mobile station to vary in **length** does not change the **definition** of the allowed access slots advertised by the base station. The base station in Papovic would still broadcast the same “[i]nformation on what access slots are available in the current cell,” and this information would still be fixed, in contrast to the dynamically adjustable parameter claimed.

With regard to the term “available” as used in Papovic, Appellant notes that that the “available” random access channel access slots broadcast by the base station in Papovic are the allowed access slots defined by the selected RACH time offsets. *See, e.g., Papovic*, col. 13, lines 24-28 (“The different time offsets are shown as access slots and are spaced 1.25 milliseconds apart. Information on what access slots are available in the current cell is broadcast by the base station on a downlink broadcast channel.”). Broadcasting “what access slots are available in the current cell” is not an indication of which allowed access slots are “available” in the sense that they are not already reserved by other mobile stations – the RACH is a random access channel, so access slots are not reserved ahead of time and the base station does not even know which access slots will be used in the future. While a mobile station may use the information broadcast by the base station regarding the available access time slots when selecting the particular access time slots on which to transmit the burst, the

reverse is not true. The definition of the available access slots for the RACH in Papovic is not affected by the number of slots a given mobile station decides to use for a particular burst of traffic.

Accordingly, Papovic and Kanterakis as applied fail to teach or suggest “receiving a dynamically adjustable parameter defining allowed access slots of a physically existing random access channel” as recited in independent claim 36, for example. Even under the Examiner’s proposed modification, the definition of the allowed access slots of the RACH in Papovic is fixed, not dynamically adjustable as claimed.

The Advisory Action

The Examiner has continued to maintain the rejections discussed above and provided arguments in support of this position in the Advisory Action dated May 6, 2010, which Appellant will address for the sake of completeness. However, Appellant notes that the Advisory Action’s arguments are predicated upon a repeated misquotation of Appellant’s previously filed response dated March 29, 2010. Appellant did not state that “The new secondary reference Kanterakis is introduced simply to show that the length of such a random access burst by a mobile station can be available, ranging from merely a few slots to many frames” as alleged in the Advisory Action, nor does such a statement make sense grammatically. Instead, Appellant stated that “The new secondary reference Kanterakis is introduced simply to show that the length of such a random access burst by a mobile station can be variable, ranging from merely a few slots to many frames.” *Response filed March 29, 2010*, pg. 22. Appellant was simply restating the Final Office Action’s assertion that “Kanterakis discloses the length of the access burst is variable and the length of the access

burst is allowed to vary from a few access slots to many frame durations.” *Final Office Action*, pg. 3. Neither the Appellant nor the Final Office Action made any assertion that Kanterakis teaches the length of a random access burst by a mobile station can be “available,” only that the length can be variable (i.e., it can vary from merely a few slots to many frames).

From this misquotation, the Examiner draws the following conclusion:

Therefore, since the length of the random access burst by the mobile station can be available, ranging from merely a few slots to many frames; and the mobile station received the available random access slots broadcasted by the base station; hence, it is inherently implied that the available random access slots broadcasted by the base station were available, ranging from merely a few slots to many frames. Therefore, the combined teaching of Papovic and Kanterakis is proper. *Advisory Action* (emphasis added).

Even setting aside the soundness of the Examiner’s logic, which the Appellant does not entirely follow, it is readily apparent that this conclusion is based on an erroneous characterization of Kanterakis stemming from a misquotation of both the Appellant’s arguments and the Final Office Action itself, and is therefore untenable.

In response to the Advisory Action’s further comments that “the fact that Applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious,” Appellant is not in fact showing another advantage. Moreover, Appellant is not attacking the references individually. Quite the contrary, Appellant is showing that even if the Examiner’s proposed combination were to be made, it would still fail to render the claimed combinations obvious.

Accordingly, Appellant submits that claim 36 discussed above is allowable over Papovic and Kanterakis. The remaining independent claims (i.e., claims 37, 53, 55, 64, 74,

75) similarly recite receiving or transmitting a dynamically adjustable parameter defining allowed access slots of a physically existing random access channel, and are therefore allowable for reasons similar to those given above. Further, the dependent claims are allowable at least by virtue of their dependency on the above-identified independent claims.

Dependent Claim 82

The remaining dependent claims are also believed to recite additional subject matter which is not obvious in view of the cited art. Dependent claim 82, for example, which depends from claim 36 argued above and is rejected in view of the same references Papovic and Kanterakis, further recites “receiving, at said at least one mobile station, an adjusted parameter defining a modified set of allowed access slots of the physically existing random access channel from said base transceiver station via said broadcast channel; determining, at said at least one mobile station, said modified set of allowed access slots of the physically existing random access channel based on said adjusted parameter; and using, at said at least one mobile station, at least one of said determined modified set of allowed access slots of the physically existing random access channel to initiate a second random access operation with said base transceiver station.” As discussed above, Papovic and Kanterakis are limited to the conventional, fixed definition systems where the allowed access slots are not dynamically adjustable. Accordingly, Papovic in view of Kanterakis cannot teach operating according to a “modified” set of allowed access slots when they do not provide the ability to modify the allowed access slots in the first place. The Final Office Action does not address claim 82 separately, but only in the context of claim 36, and draws the same erroneous conclusions about the teachings of Papovic and Kanterakis. *Final Office Action*, pgs. 2-4.

2. Regarding the rejection of dependent claim 42 in view of Papovic, Kanterakis, and Gustafsson.

Gustafsson fails to cure the deficiencies of Papovic and Kanterakis discussed above with regard to independent claim 36. Thus, Appellant submits that independent claim 36 is patentable over Papovic and Kanterakis in view of Gustafsson for the reasons discussed above. Accordingly, the patentability of independent claim 36 precludes a rejection of claim 42, which depends therefrom.

3. Regarding the rejection of dependent claims 81, 83, 85, 87, 89, 91, and 93 in view of Papovic, Kanterakis, and Sardana.

Sardana fails to cure the deficiencies of Papovic and Kanterakis discussed above with regard to independent claims 36, 37, 53, 55, 64, 74, and 75. Thus, Appellant submits that independent claims 36, 37, 53, 55, 64, 74, and 75 are patentable over Papovic and Kanterakis in view of Sardana for the reasons discussed above. Accordingly, the patentability of independent claims 36, 37, 53, 55, 64, 74, and 75 precludes a rejection of claims 81, 83, 85, 87, 89, 91, and 93 depending variously therefrom.

VIII. CLAIMS

A copy of the claims involved in the present appeal is attached hereto as Appendix A. As indicated above, the claims in Appendix A include the latest amendments filed by Appellant on June 22, 2009.

IX. EVIDENCE

No evidence pursuant to §§ 1.130, 1.131, or 1.132 or entered by or relied upon by the Office is being submitted.

X. RELATED PROCEEDINGS

No related proceedings are referenced in Section II, above.

XI. CONCLUSION

Appellant respectfully submits that claims 36-40, 42, 48, 53, 55-57, 59-62, 64-66, 74, 75, and 81-94 are patentable over the applied art and that all of the rejections and objections of record should be reversed.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 17-0026 for any additional fees required under 37 C.F.R. § 1.16 or 1.17, particularly extension of time fees.

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APPENDIX A: CLAIMS

1-34. (Cancelled)

35. (Previously Presented) The method according to claim 43, further comprising:
receiving said parameter via a broadcast channel.

36. (Previously Presented) A method, comprising:
receiving a dynamically adjustable parameter defining allowed access slots of a physically existing random access channel from a base transceiver station of a mobile communications network by at least one mobile station of a plurality of mobile stations of the mobile communications network;

determining, at said at least one mobile station, said allowed access slots of the physically existing random access channel based on said parameter;

using, at said at least one mobile station, at least one of said determined allowed access slots of the physically existing random access channel to initiate a random access operation with said base transceiver station; and

receiving said parameter via a broadcast channel, wherein said broadcast channel is a broadcast channel of a wideband code division multiple access system.

37. (Previously Presented) A method, comprising:
receiving a dynamically adjustable parameter defining allowed access slots of a physically existing random access channel from a base transceiver station of a mobile communications network by at least one mobile station of a plurality of mobile stations of the mobile communications network;

determining, at said at least one mobile station, said allowed access slots of the physically existing random access channel based on said parameter;

using, at said at least one mobile station, at least one of said determined allowed access slots of the physically existing random access channel to initiate a random access operation with said base transceiver station;

receiving said parameter via a broadcast channel; and

initiating said random access operation via a physical random access channel uplink channel and an acquisition indication channel downlink channel of the wideband code division multiple access system.

38. (Previously Presented) The method according to claim 36, wherein said parameter defines a subset of available access slots of said mobile communications network.

39. (Previously Presented) The method according to claim 38, further comprising:
determining said subset by another parameter transmitted from said base transceiver station to said mobile station.

40. (Previously Presented) The method according to claim 39, wherein said other parameter is a timing parameter defining a transmission timing of an uplink access slot.

41. (Cancelled)

42. (Previously Presented) The method according to claim 39, further comprising:
changing a bit number of said parameter in dependence on said other parameter.

43. (Previously Presented) A method, comprising:

receiving a parameter defining allowed access slots of a physically existing random access channel from a base transceiver station of a mobile communications network by at least one mobile station of a plurality of mobile stations of the mobile communications network;

determining, at said at least one mobile station, said allowed access slots of the physically existing random access channel based on said parameter;

using, at said at least one mobile station, at least one of said determined allowed access slots of the physically existing random access channel to initiate a random access operation with said base transceiver station, wherein said parameter defines a subset of available access slots of said mobile communications network;

determining said subset by another parameter transmitted from said base transceiver station to said mobile station;

changing a bit number of said parameter in dependence on said other parameter; and

disabling a transmission of a preamble signature or an acquisition indication in dependence on a value of said parameter.

44. (Previously Presented) A method, comprising:

receiving a parameter defining allowed access slots of a physically existing random access channel from a base transceiver station of a mobile communications network by at least one mobile station of a plurality of mobile stations of the mobile communications network;

determining, at said at least one mobile station, said allowed access slots of the physically existing random access channel based on said parameter;

using, at said at least one mobile station, at least one of said determined allowed access slots of the physically existing random access channel to initiate a random access operation with said base transceiver station, wherein said parameter defines a subset of available access slots of said mobile communications network;

determining said subset by another parameter transmitted from said base transceiver station to said mobile station;

changing a bit number of said parameter in dependence on said other parameter; and

calculating an index of an allowed uplink access slot on the basis of a value of said parameter and a frame number of a frame used for transmitting an uplink access slot.

45. (Previously Presented) A method, comprising:

receiving a parameter defining allowed access slots of a physically existing random access channel from a base transceiver station of a mobile communications network by at least one mobile station of a plurality of mobile stations of the mobile communications network;

determining, at said at least one mobile station, said allowed access slots of the physically existing random access channel based on said parameter; and

using, at said at least one mobile station, at least one of said determined allowed access slots of the physically existing random access channel to perform a random access operation with said base transceiver station, wherein said parameter defines a subset of available access slots of said mobile communications network, wherein said subset is determined by another parameter transmitted from said base transceiver station to said at least one mobile station,

wherein a bit number of said parameter is changed in dependence on said other parameter,

wherein an index of an allowed uplink access slot is calculated on the basis of the value of said parameter and a frame number of a frame used for transmitting an uplink access slot,

wherein said index is calculated by using the equation

$$i = 3 \cdot N + (F \text{ modulo } 3)$$

where $0 \leq N \leq 2$,

wherein F and N are integers, and F denotes said frame number, and

wherein only access slots having indices within the range 0 to 7 are valid.

46. (Previously Presented) A method, comprising:

receiving a parameter defining allowed access slots of a physically existing random access channel from a base transceiver station of a mobile communications network by at least one mobile station of a plurality of mobile stations of the mobile communications network;

determining, at said at least one mobile station, said allowed access slots of the physically existing random access channel based on said parameter; and

using, at said at least one mobile station, at least one of said determined allowed access slots of the physically existing random access channel to perform a random access operation with said base transceiver station wherein said parameter defines a subset of available access slots of said mobile communications network, wherein said subset is determined by another parameter transmitted from said base transceiver station to said mobile station, wherein a bit number of said parameter is changed in dependence on said other parameter, wherein an index of an allowed uplink access slot is calculated on the basis of the value of said parameter and a frame number of a frame used for transmitting an uplink access slot,

wherein said index is calculated by using the equation

$$i = 4 \cdot N + (\Gamma \text{ modulo } 4)$$

where $0 \leq N \leq 3$,

wherein Γ and N are integers, and Γ denotes a frame number indicating two consecutive frame numbers of said frame used to transmit an uplink access slot, and

wherein only access slots having indices within the range 0 to 14 are valid.

47. (Previously Presented) The method according to claim 45, wherein said parameter determines an offset to be added to said calculated index.

48. (Previously Presented) The method according to 36, further comprising:
determining an index of an allowed uplink access slot on the basis of a value of said parameter irrespective of a frame number of a frame used to transmit an uplink access slot.

49-50. (Cancelled)

51. (Previously Presented) A method, comprising:
receiving a parameter defining allowed access slots of a physically existing random access channel from a base transceiver station of a mobile communications network by at least one mobile station of a plurality of mobile stations of the mobile communications network;
determining, at said at least one mobile station, said allowed access slots of the physically existing random access channel based on said parameter; and
using, at said at least one mobile station, at least one of said determined allowed access slots of the physically existing random access channel to initiate a random access operation with said base transceiver station, wherein bit values of a binary expression of said parameter

determine a combination of calculated indices obtained for other values of said parameter, said other values corresponding to binary weights of said binary expression.

52. (Cancelled)

53. (Previously Presented) A system, comprising:

a base transceiver station configured to transmit a dynamically adjustable parameter defining allowed access slots of a physically existing random access channel; and

a plurality of mobile stations configured to receive said parameter to determine said allowed access slots of the physically existing random access channel based on said parameter, and to use at least one of said determined allowed access slots of the physically existing random access channel to initiate a random access operation with said base transceiver station, wherein said base transceiver station is a wideband code division multiple access base transceiver station and said plurality of mobile stations are wideband code division multiple access mobile stations.

54. (Cancelled)

55. (Previously Presented) An apparatus, comprising:

setting means for setting a dynamically adjustable parameter defining allowed access slots of a physically existing random access channel, wherein at least one mobile station initiates a random access operation to the apparatus based on the allowed access slots of the physically existing random access channel; and

transmitting means for transmitting said parameter to said plurality of mobile stations, wherein said apparatus is a wideband code division multiple access base transceiver station.

56. (Previously Presented) The apparatus according to claim 55, wherein said transmitting means transmits said parameter via a broadcast channel.

57. (Previously Presented) The apparatus according to claim 55, wherein said setting means sets said parameter in dependence on a timing parameter value defining a transmission timing of an uplink access slot in said random access operation.

58. (Cancelled)

59. (Previously Presented) The apparatus according to claim 64, wherein said receiver is configured to receive said parameter via a broadcast channel.

60. (Previously Presented) The apparatus according to claim 64, wherein said processor is further configured to determine said allowed access slots of the physically existing random access channel on the basis of said received parameter and a timing parameter received via said broadcast channel.

61. (Previously Presented) The apparatus according to claim 64, wherein said processor is further configured to calculate an index of an allowed uplink access slot on the basis of the value of said received parameter and a frame number of a frame used to transmit an uplink access slot.

62. (Previously Presented) The apparatus according to claim 64, wherein said processor is further configured to determine an index of an allowed uplink access slot on the basis of the value of said parameter irrespective of a frame number of a frame used to transmit an uplink access slot.

63. (Cancelled)

64. (Previously Presented) An apparatus, comprising:

- a receiver configured to receive from a network element a dynamically adjustable parameter defining allowed access slots of a physically existing random access channel for a random access operation;
- a processor configured to determine said allowed access slots of the physically existing random access channel based on said parameter received from said network element; and
- a transmitter configured to initiate transmission of a random access message to said network element using at least one of said determined allowed access slots of the physically existing random access channel, wherein the processor is further configured to randomly select an uplink access slot to be used for transmitting a preamble of said random access message from the allowed access slots of the physically existing random access channel determined by said processor, and wherein consecutive preambles are transmitted a predetermined number of access slots apart.

65. (Previously Presented) The apparatus according to claim 64, wherein said predetermined number depends on a timing parameter received by said receiver.

66. (Previously Presented) The apparatus according to claim 64, wherein said processor is further configured to perform said random selection any time a preamble needs to be transmitted.

67-73. (Cancelled)

74. (Previously Presented) An apparatus, comprising:

a processor configured to receive a dynamically adjustable parameter defining allowed access slots of a physically existing random access channel from a base transceiver station of a mobile communications network, determine said allowed access slots of the physically existing random access channel based on said parameter, use at least one of said determined allowed access slots of the physically existing random access channel to initiate a random access operation with said base transceiver station, and receive said parameter via a broadcast channel, wherein said broadcast channel is a broadcast channel of a wideband code division multiple access system.

75. (Previously Presented) An apparatus, comprising:

a processor configured to receive a dynamically adjustable parameter defining allowed access slots of a physically existing random access channel from a base transceiver station of a mobile communications network, determine said allowed access slots of the physically existing random access channel based on said parameter, use at least one of said determined allowed access slots of the physically existing random access channel to initiate a random access operation with said base transceiver station, receive said parameter via a broadcast channel, and

initiate said random access operation via a physical random access channel uplink channel and an acquisition indication channel downlink channel of the wideband code division multiple access system.

76. (Previously Presented) An apparatus, comprising:

a processor configured to receive a parameter defining allowed access slots of a physically existing random access channel from a base transceiver station of a mobile communications network, determine said allowed access slots of the physically existing random access channel based on said parameter, use at least one of said determined allowed access slots of the physically existing random access channel to initiate a random access operation with said base transceiver station, wherein said parameter defines a subset of available access slots of said mobile communications network, determine said subset by another parameter transmitted from said base transceiver station, change a bit number of said parameter in dependence on said other parameter, and disable a transmission of a preamble signature or an acquisition indication in dependence on a value of said parameter.

77. (Previously Presented) An apparatus, comprising:

a processor configured to receive a parameter defining allowed access slots of a physically existing random access channel from a base transceiver station of a mobile communications network, determine said allowed access slots of the physically existing random access channel based on said parameter, use at least one of said determined allowed access slots of the physically existing random access channel to initiate a random access operation with said base transceiver station, wherein said parameter defines a subset of available access slots of said

mobile communications network, determine said subset by another parameter transmitted from said base transceiver station, change a bit number of said parameter in dependence on said other parameter, and calculate an index of an allowed uplink access slot on the basis of a value of said parameter and a frame number of a frame used for transmitting an uplink access slot.

78. (Previously Presented) An apparatus, comprising:

a processor configured to receive a parameter defining allowed access slots of a physically existing random access channel from a base transceiver station of a mobile communications network; determine said allowed access slots of the physically existing random access channel based on said parameter, and use at least one of said determined allowed access slots of the physically existing random access channel to perform a random access operation with said base transceiver station, wherein said parameter defines a subset of available access slots of said mobile communications network, wherein said subset is determined by another parameter transmitted from said base transceiver station, wherein a bit number of said parameter is changed in dependence on said other parameter, wherein an index of an allowed uplink access slot is calculated on the basis of the value of said parameter and a frame number of a frame used for transmitting an uplink access slot,

wherein said index is calculated by using the equation

$$i = 3 \cdot N + (F \text{ modulo } 3)$$

where $0 \leq N \leq 2$,

wherein F and N are integers, and F denotes said frame number, and

wherein only access slots having indices within the range 0 to 7 are valid.

79. (Previously Presented) An apparatus, comprising:

a processor configured to receive a parameter defining allowed access slots of a physically existing random access channel from a base transceiver station of a mobile communications network, determine said allowed access slots of the physically existing random access channel based on said parameter, and use at least one of said determined allowed access slots of the physically existing random access channel to perform a random access operation with said base transceiver station, wherein said parameter defines a subset of available access slots of said mobile communications network, wherein said subset is determined by another parameter transmitted from said base transceiver station, wherein a bit number of said parameter is changed in dependence on said other parameter, wherein an index of an allowed uplink access slot is calculated on the basis of the value of said parameter and a frame number of a frame used for transmitting an uplink access slot, wherein said index is calculated by using the equation

$$i = 4 \cdot N + (\Gamma \text{ modulo } 4)$$

where $0 \leq N \leq 3$,

wherein Γ and N are integers, and Γ denotes a frame number indicating two consecutive frame numbers of said frame used to transmit an uplink access slot, and wherein only access slots having indices within the range 0 to 14 are valid.

80. (Previously Presented) An apparatus, comprising:

a processor configured to receive a parameter defining allowed access slots of a physically existing random access channel from a base transceiver station of a mobile communications network, determine said allowed access slots of the physically existing random access channel based on said parameter, and use at least one of said determined allowed access slots of the physically existing random access channel to initiate a random access operation with said base transceiver station, wherein bit values of a binary expression of said parameter

determine a combination of calculated indices obtained for other values of said parameter, said other values corresponding to binary weights of said binary expression.

81. (Previously Presented) The method according to claim 36, wherein said parameter is dynamically adjusted by said mobile communications network based on at least one of random access messaging load and hardware requirements at said base transceiver station.

82. (Previously Presented) The method according to claim 36, further comprising:
receiving, at said at least one mobile station, an adjusted parameter defining a modified set of allowed access slots of the physically existing random access channel from said base transceiver station via said broadcast channel;

determining, at said at least one mobile station, said modified set of allowed access slots of the physically existing random access channel based on said adjusted parameter; and

using, at said at least one mobile station, at least one of said determined modified set of allowed access slots of the physically existing random access channel to initiate a second random access operation with said base transceiver station.

83. (Previously Presented) The method according to claim 37, wherein said parameter is dynamically adjusted by said mobile communications network based on at least one of random access messaging load and hardware requirements at said base transceiver station.

84. (Previously Presented) The method according to claim 37, further comprising:

receiving, at said at least one mobile station, an adjusted parameter defining a modified set of allowed access slots of the physically existing random access channel from said base transceiver station via said broadcast channel;

determining, at said at least one mobile station, said modified set of allowed access slots of the physically existing random access channel based on said adjusted parameter;

using, at said at least one mobile station, at least one of said determined modified set of allowed access slots of the physically existing random access channel to initiate a second random access operation with said base transceiver station; and

initiating said second random access operation via said physical random access channel uplink channel and said acquisition indication channel downlink channel of the wideband code division multiple access system.

85. (Previously Presented) The system according to claim 53, wherein said base transceiver station is further configured to dynamically adjust said parameter based on at least one of random access messaging load and hardware requirements at said base transceiver station.

86. (Previously Presented) The system according to claim 53, wherein:
said base transceiver station is further configured to dynamically adjust said parameter and to transmit said adjusted parameter defining a modified set of allowed access slots of said physically existing random access channel; and

said plurality of mobile stations are further configured to receive said adjusted parameter to determine said modified set of allowed access slots of the physically existing random access channel based on said adjusted parameter, and to use at least one of said determined modified set

of allowed access slots of the physically existing random access channel to initiate a second random access operation with said base transceiver station.

87. (Previously Presented) The apparatus according to claim 55, wherein said setting means comprises means for dynamically adjusting said parameter based on at least one of random access messaging load and hardware requirements at said base transceiver station.

88. (Previously Presented) The apparatus according to claim 55, wherein:
said setting means comprises means for dynamically adjusting said parameter to define a modified set of allowed access slots of the physically existing random access channel, wherein at least one mobile station initiates a random access operation to the apparatus based on the modified set of allowed access slots of the physically existing random access channel; and

said transmitting means comprises means for transmitting said adjusted parameter to said plurality of mobile stations.

89. (Previously Presented) The apparatus according to claim 64, wherein said parameter is dynamically adjusted by said network element based on at least one of random access messaging load and hardware requirements at said network element.

90. (Previously Presented) The apparatus according to claim 64, wherein:
said receiver is further configured to receive from said network element an adjusted parameter defining a modified set of allowed access slots of the physically existing random access channel for a second random access operation;

said processor is further configured to determine said modified set of allowed access slots of the physically existing random access channel based on said adjusted parameter received from said network element; and

said transmitter is further configured to initiate transmission of a second random access message to said network element using at least one of said determined modified set of allowed access slots of the physically existing random access channel, and to randomly select an uplink access slot to be used for transmitting a preamble of said second random access message from the modified set of allowed access slots of the physically existing random access channel determined by said processor.

91. (Previously Presented) The apparatus according to claim 74, wherein said parameter is dynamically adjusted by said mobile communications network based on at least one of random access messaging load and hardware requirements at said base transceiver station.

92. (Previously Presented) The apparatus according to claim 74, wherein said processor is further configured to receive an adjusted parameter defining a modified set of allowed access slots of the physically existing random access channel from said base transceiver station of said mobile communications network via said broadcast channel, determine said modified set of allowed access slots of the physically existing random access channel based on said adjusted parameter, and use at least one of said determined modified set of allowed access slots of the physically existing random access channel to initiate a second random access operation with said base transceiver station.

93. (Previously Presented) The apparatus according to claim 75, wherein said parameter is dynamically adjusted by said mobile communications network based on at least one of random access messaging load and hardware requirements at said base transceiver station.

94. (Previously Presented) The apparatus according to claim 75, wherein said processor is further configured to receive an adjusted parameter defining a modified set of allowed access slots of the physically existing random access channel from said base transceiver station of said mobile communications network via said broadcast channel, determine said modified set of allowed access slots of the physically existing random access channel based on said adjusted parameter, use at least one of said determined modified set of allowed access slots of the physically existing random access channel to initiate a second random access operation with said base transceiver station, and initiate said second random access operation via said physical random access channel uplink channel and said acquisition indication channel downlink channel of the wideband code division multiple access system.

APPENDIX B: EVIDENCE

(None)

APPENDIX C: RELATED PROCEEDINGS

(None)